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10/046,226

01/16/2002

Xi Shen

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11/30/2009

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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Art Unit: 3623



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/046,226

Filing Date: January 16, 2002

Appellant(s): SHEN ET AL.

James M. Stover
Reg. No. 32,759
For Appellant

EXAMINER'S ANSWER

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This is in response to the appeal brief filed April 10, 2008 appealing from the Office action mailed September 14, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

NEW GROUND(S) OF REJECTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In order for a method to be considered a "process" under §101, a claimed process must either: (1) be tied to a particular machine or apparatus or (2) transforms a particular article to a different state or thing. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parkerv. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008). If neither of these requirements is met by the claim, the method is not a patent eligible process under §101 and is non-statutory subject matter.

There are two corollaries to this test. First, the use of the specific machine or transformation of the article must impose meaningful limits on the claim's scope to impart patent-eligibility. See *Benson*, 409 U.S. at 71-72. Second the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity. See *Flook*, 437 U.S. at 590.

With regard to claim 16, all the recited steps of the claim are performed without the use of a particular machine. Further, there is no transformation of a particular article to a different state or thing. Therefore, it is respectfully submitted that claim 16 is directed to non-statutory subject matter.

Claims 17-21 depend from claim 16 and contain the same deficiencies. Therefore, claims 17-21 are also directed towards non-statutory subject matter.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,925,441	Jones, III et al.	8-2005
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(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

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Claims 17-21 depend from claim 16 and contain the same deficiencies. Therefore, claims 17-21 are also directed towards non-statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (U.S. Patent No. 6925441).

As per claim 16, Jones teaches:

A method of identifying highly valued customers using a Customer Value Metric Model comprising:

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determining a frequency value for each customer, said frequency value comprising a measurement of activities for each customer within a specified time period (see column 13 line 19-45; where the frequency value for each customer is incorporated. The system further uses a frequency value to determine whether a customer is likely to spend over a specific period of time.);

determining a net revenue contribution value for each customer, said net revenue contribution value comprising a dollar value measurement for each customer's contribution to a revenue within said specific time period (see column 13 line 19-45; where the customer transaction history is used. A customer transaction history gives information as to the total net revenue received from a customer. Furthermore, a non-linear score is determined how much the customer has spent. This factor is the same as a customer's contribution to revenue.);

scoring the frequency value and net revenue contribution value for each customer (column 14 lines 8-65; where a customer value scoring is done using the customer transaction history. The customer transaction history contains both the frequency value and the revenue contribution value.); and

identifying the highly valued customers by ranking the customers based on the scores and presenting said results to a user (column 14 lines 8-65; where a customer value scoring is done using the customer transaction history. The customer transaction history contains both the frequency value and the revenue contribution value. Those customers with high customer value scores can be identified as highly valued customers. This history is accessible to users.).

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Jones fails to explicitly teach a method of “identifying highly valued customers of an airline” and airline specific limitations of “flight activities”, “flight mileage”, and “miles flow by” recited in claim 16. However, Jones discloses a method of targeted marketing that can be applied to a variety of industries, regardless of the intended field of use of the method. Although Jones teaches a method of targeted marketing, the system has utility in other applications (see column 16 lines 31-35). The system being adapted to marketing customers of an airline and incorporating the factors of a “flight activities”, “flight mileage”, and “miles flow by” is irrelevant since the intended use does not change the overall functionality of the system. The intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Therefore, it would have been obvious, at the time of the invention, to one of ordinary skill in the art to use the Jones system at a method of “identifying highly valued customers of an airline” and incorporating the factors of a “flight activities”, “flight mileage”, and “miles flow by” because Jones system is designed to be used to identify targeted customers regardless of the intended use.

As per claim 17, Jones teaches:

The method as claimed in claim 16, comprising: ranking the customers based on the frequency value score (see column 13 line 19-45; where the frequency value for each customer is incorporated.).

As per claim 18, Jones teaches:

The method as claimed in claim 16, comprising: ranking the customers based on the net revenue contribution value score (see column 13 line 19-45; where the customer

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transaction history is used. A customer transaction history gives information as to the total net revenue received from a customer.).

As per claim 19, Jones teaches:

The method as claimed in claim 16, further comprising: sorting the scores based on score pairs including frequency value and net revenue contribution value (column 14 lines 8-65; where a customer value scoring is done using the customer transaction history. The customer transaction history contains both the frequency value and the revenue contribution value.).

As per claim 20, Jones teaches “sorting matching score pairs based on net revenue contribution value” (see column 15 lines 35-61; where the data is sorted based on the net present value. The net present value incorporates the customer value score and the transactional history score. The transactional history score incorporates the revenues generated from the customer.) and “ranking the customers based on the assigned numerical value to identify the highly valued customers” (column 14 lines 8-65; where a customer value scoring is done using the customer transaction history. The customer transaction history contains both the frequency value and the revenue contribution value. Those customers with high customer value scores can be identified as highly valued customers.). Jones fails to explicitly teach “dividing the customers into N groups” and “assigning a numerical value 1-N to each group”. It is old and well-known in the art to divide customers in to segments and assign a numerical value to the group or segment. The advantage of these steps is that it enables promoting specific products to specific customers, thereby enhancing the accuracy of the marketing. It would have been obvious, at the time of the invention, for one of ordinary skill in the art to modify Jones to “dividing the customers into N

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groups” and “assigning a numerical value 1-N to each group” in order to enable promoting specific products to specific customers, thereby enhancing the accuracy of the marketing, which is a goal of Jones (see column 4 lines 43-45).

As per claim 21, Jones fails to explicitly teach “wherein N is 100”. As discussed above, it is old and well-known in the art to divide customers in to groups and assign the groups a numerical value; therefore it is old and well-known in the art to specifically divide customers in to 100 groups. The advantage of these steps is that it enables promoting specific products to specific customers, thereby enhancing the accuracy of the marketing. It would have been obvious, at the time of the invention, for one of ordinary skill in the art to modify Jones to incorporate “100 groups” in order to enable promoting specific products to specific customers, thereby enhancing the accuracy of the marketing, which is a goal of Jones (see column 4 lines 43-45).

(10) Response to Argument

Appellants argue that Jones fails to teach “determining a flight mileage value for each customer, said mileage value comprising a measurement of flight activities for miles flown by each customer within a specified time period”. Appellants specifically argue that the Jones marketing system could not be adapted to the aviation industry to include the specific terms of “flight activities”, “flight mileage”, and “miles flown by” as recited in claim 16. Examiner respectfully disagrees.

As discussed in the rejection above, Jones teaches a variable that is representative of a measurement of some activity by a customer within a specified time period (see Jones Column

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13 lines 19-45). In the example provided by Jones, this activity is a transaction history that includes information about a customer regarding the amount and frequency of purchases (see Jones Column 13 lines 19-45). The adaptation of this functionality to the aviation industry is within ordinary skill in the art and obvious. The terms “flight activities”, “flight mileage”, and “miles flown by” are industry specific terms that mean the same thing as an amount and frequency of purchases taught by Jones. Thus, the present invention merely uses these industry specific terms as substitutes to the terms used by Jones. As such, Examiner maintains that the adaptation of Jones to the aviation industry is within ordinary skill in the art and obvious.

Appellants further argue that the adaptation of a prior art marketing invention to address the needs of a different customer is a patentable invention (see Appeal Brief page 5 last paragraph). Examiner maintains that the adaptation of Jones to the aviation industry does not require any change in functionality, just a change in the descriptive terms used. As such, the adaptation of Jones to the aviation industry would be obvious.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

This examiner’s answer contains a new ground of rejection set forth in section **(9)** above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

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(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

/KALYAN DESHPANDE/
Kalyan Deshpande
Patent Examiner
AU 3625

/Beth V. Boswell/
Supervisory Patent Examiner, Art Unit 3623

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A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:

/Wynn W. Coggins/

Director, TC 3600

Conferees:

Vincent Millin /VM/

Appeal Conference Specialist

/J. A. S./

Supervisory Patent Examiner, Art Unit 3625

Jeffrey A. Smith

Supervisory Patent Examiner

AU 3625